WEST Refine Search Page 1 of 2

# Refine Search

# Search Results -

Terms	Documents
713.clas.	31118

US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database Database: JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins

Refine Search Search:

Clear

Interrupt

# Search History

Printable Copy DATE: Monday, May 14, 2007 Purge Queries Create Case

Recall Text 👄

Set Name side by side	Query	<u>Hit</u> Count	Set Name result set
DB=I	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD; PLUR=YES; OP=OR		
L27	713.clas.	31118	<u>L</u> 27
L26	713/162	389	L26
L25	L22 and (decrypting near information or decrypting adj information or decrypting with information)	16	L25
<u>L2</u> 4	L23 and (decrypting near information or decrypting adj information or decrypting with information)	1	L24
L23	L22 and (sensing with device or sensing near device or sensing adj device)	205	L23
L22	(telecommunication with address or telecommunication near address or telecommunication adj address)	4714	L22
Ļ21	L20 and (telecommunication with address or telecommunication near address or telecommunication adj address)	3	L21
<u>L20</u>	(point and multicast) not @py>1998	797	L20
<u>L19</u>	705/79	270	L19

<u>L18</u>	705/77
<u>L17</u>	705/77
<u>L16</u>	705/73
<u>L15</u>	705/72
<u>L14</u>	705/70
<u>L</u> 13	705/67
<u>L12</u>	705/75
<u>L11</u>	705/62
<u>L10</u>	705/58
L9	705/56
<u>L8</u>	705/53
<u>L7</u>	705/40
<u>L6</u>	705/35
L5	705/34
<u>L4</u>	705/33
<u>L3</u>	705/23
<u>L2</u>	705/21
<u>L</u> ]	705.clas.

235	<u>L18</u>
235	L17
88	L16
220	<u>L15</u>
122	L14
731	L13
684	L12
242	L11
430	L10
324	L <u>9</u>
497	<u>L8</u>
1876	<u>L7</u>
3024	<u>L6</u>
894	<u>L5</u>
138	<u>L4</u>
580	<u>L3</u>
603	<u>L2</u>
50270	<u>L1</u>

# END OF SEARCH HISTORY

First Hit Fwd Refs

Previous Doc

Next Doc

Go to Doc#

Generate Collection

Print

L25: Entry 11 of 16

File: USPT

Feb 28, 2006

US-PAT-NO: 7007166

DOCUMENT-IDENTIFIER: US 7007166 B1

TITLE: Method and system for digital watermarking

DATE-ISSUED: February 28, 2006

INVENTOR-INFORMATION:

NAME

CITY

ZIP CODE STATE

COUNTRY

Moskowitz; Scott A.

Miami

FLCA US

Cooperman; Marc

Palo Alto

US

ASSIGNEE-INFORMATION:

NAME

CITY STATE ZIP CODE COUNTRY

TYPE CODE

Wistaria Trading, Inc.

Miami

US

02

APPL-NO: 09/545589 [PALM] DATE FILED: April 7, 2000

RELATED-US-APPL-DATA:

continuation parent-doc US 08674726 00 19960702 PENDING child-doc US 09545589

INT-CL-ISSUED:

TYPE IPC

DATE

IPC-OLD

IPCP H04L9/00 20060101

H04L009/00

INT-CL-CURRENT:

TYPE IPC

DATE

CIPP H04 L 9/00 20060101

US-CL-ISSUED: 713/176; 713/168, 380/46 US-CL-CURRENT: 713/176; 380/46, 713/168

FIELD-OF-CLASSIFICATION-SEARCH: 713/176, 713/168, 380/46

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL

Page 2 of 4 Record Display Form

	4038596	July 1977	Lee	
Γ	4200770	April 1980	Hellman et al.	
Γ	4218582	August 1980	Hellman et al.	
Γ	4405829	September 1983	Rivest et al.	
Γ	4424414	January 1984	Hellman et al.	
Г	47 <u>48668</u>	May 1988	Shamir et al.	
Γ	4789928	December 1988	Fujisaki	
Г	4908873	March 1990	Philibert et al.	
Γ	4979210	December 1990	Nagata et al.	
Г	4980782	December 1990	Ginkel	
Γ	5073925	December 1991	Nagata et al.	
_	5243515	September 1993	Lee	
Г	5287407	February 1994	Holmes	
Γ	5319735	June 1994	Preuss et al.	
Г	5363448	November 1994	Koopman et al.	713/170
Γ	5365586	November 1994	Indeck et al.	•
Γ	5379345	January 1995	Greenberg	
Γ	5394324	February 1995	Clearwater	
Γ	5408505	April 1995	Indeck et al.	
[	5412718	May 1995	Narasimhalu et al.	
Г	5428606	June 1995	Moskowitz	
Γ	5487168	January 1996	Geiner et al.	
Γ	5493677	February 1996	Balogh et al.	
Γ_	5530759	June 1996	Braudaway et al.	
	5568570	October 1996	Rabbani	
Γ	5606609	February 1997	Houser et al.	
Γ	5613004	March 1997 .	Cooperman et al.	
Γ	5617119	April 1997	Briggs et al.	
_	5636292	June 1997	Rhoads	
	5640569	June 1997	Miller et al.	
Γ	5659726	August 1997	Sandford, II et al.	
Γ	5664018	September 1997	Leighton	
Г	5687236	November 1997	Moskowitz et al.	
Г	5734752	March 1998	Knox	
Г	5745569	April 1998	Moskowitz et al.	
Γ	5748783	May 1998	Rhoads	382/232
Γ	6330672	December 2001	Shur	713/176

#### OTHER PUBLICATIONS

```
Alfred J. Menezes, Handbook of Applied Cryptography, 1997, CRC Press LLC, p. 175.
cited by examiner
Smith, et al., "Modulation and Information Hiding in Images," Springer Verlag,
First International Workshop, Cambridge, U.K., May 30 to Jun. 1, 1996, pp. 207-227.
cited by other
Kutter, et al., "Digital Signature of Color Images Using Amplitude Modulation,"
SPIE-E197, vol. 3022, pp. 518-527. cited by other
Puate, et al., "Using Fractal Compression Scheme to Embed a Digital Signature into
an Image, "SPIE-96 Proceedings, vol. 2915, Mar. 1997, pp. 108-118. cited by other
Boney, et al., "Digital Watermarks for Audio Signals," 1996 IEEE Int. Conf. on
Multimedia Computing and Systems, Jun. 17-23, Hiroshima, Japan, pp. 473-480. cited
by other
Boney, et al., "Digital Watermarks for Audio Signals," Proceedings of EUSIPCO-96,
8th European Signal Processing Conference, Trieste, Italy, Sep. 10-13, 1996, 5
pages. cited by other
Swanson, et al., "Transparent Robust Image Watermarking," Proc. of the 1996 IEEE
Int. Conf. on Image Processing, vol. III, 1996, pp. 211-214. cited by other
Swanson, et al., "Robust Data Hiding for Images," 7th IEEE Digital Signal
Processing Workshop, Sep. 1-4, 1996, Loen, Norway, pp. 37-40. cited by other
Cox, et al., "Secure Spread Spectrum Watermarkings for Multimedia," NEC Research
Institute, Technical Report 95-10, 1995, 33 pages. cited by other
Zhao, et al., "Embedding Robust Labels into Images for Copyright Protection,"
Proceedigns of the KnowRight'95 Conference, pp. 242-251. cited by other
Kock, et al., "Towards Robust and Hidden Image Copyright Labeling," 1995 IEEE
Workshop on Nonlinear Signal and Image Processing, Neos Marmaras, Jun. 1995, 4
pages. cited by other
Langelaar, et al., "Copy Protection for Multimedia Data based on Labeling
Techniques," Dept. of Electrical Engineering, Information Theory Group, Delft Univ.
of Tech., Delft, The Netherlands, Jul. 1996, 9 pages. cited by other
Van Schyndel, et al., "A Digital Watermark," IEEE International Computer Processing
Conference, Austin, TX, Nov. 13-16, 1994, pp. 86-90. cited by other
Van Schyndel, et al., "Towards A Robust Digital Watermark," Second Asian Image
Processing Conference, Singapore, Dec. 6-8, 1995, vol. 2, pp. 504-508. cited by
other
Tirkel, et al., "A Two-Dimensional Digital Watermark," DICTA'95, University of
Queensland, Brisbane, Dec. 5-8, 1995, 7 pages. cited by other
Tirkel, A.Z., "Image Watermarking--A Spread Spectrum Application," ISSSSTA'96, Sep.
1996, Mainz, Germany, 6 pages. cited by other
Ruanaidh, et al., "Watermarking Digital Images for Copyright Protection," IEF
Proceedings, vol. 143, No. 4, Aug. 1996, pp. 250-256. cited by other
Hartung, et al., "Digital Watermarking of Raw and Compressed Video," SPIE vol.
2952, EOS Series, Symposium on Advanced Imaging and Network Technologies, Berlin,
Germany, Oct. 1996, pp. 205-213. cited by other
Press, et al., "Numerical Recipes in C," Cambridge University Press, 1988, 12.
Fourier Transform Spectral Methods, pp. 398-470. cited by other
Pohlmann, Ken C., "Principles of Digital Audio," Third Edition, 1995, pp. 32-37,
40-48, 138, 147-149, 332, 333, 364, 499-501, 508-509, 564-571. cited by other
Pohlmann, Ken C., "Principles of Digital Audio," Second Edition, 1991, pp. 1-9, 19-
25, 30-33, 41-48, 54-57, 86-107, 375-387. cited by other
Schneier, B., "Applied Cryptography," John Wiley & Sons, Inc., New York, 1994,
particularly the following sections: 4.1 Subliminal Channel, pp. 66-68, 16.6
Subliminal Channel, pp 387-392, Ch. I pp 1-16, Ch. 2 pp 17-41, Ch. 3 pp 42-57, Ch.
12.1 pp 273-275, Ch 14.1 pp 321-324. cited by other
Kahn, D., "The Code Breakers," The Macmillan Company, 1969, particularly the
following sections on steganography pp. xiii, 81-83, 513, 515, 522-526, 873. cited
Brealey, et al., "Principles of Corporate Finance, Appendix A--Using Option-
Valuation Models," 1984, pp. 448-449. cited by other
```

Copeland, et al., "Real Options: A Practitioner's Guide," 2001, pp. 106-107, 201-202, 204-208. cited by other

Sarkar, M. "An Assessment of Pricing Mechanisms for the Internet--A Regulatory Imperative," presented at MIT Workshop on Internet Economics, Mar. 1995. http://www.press.umich.edu/jep/works/SarkAssess.html on Mar. 12, 2001. cited by other

Crawford, D.W., "Pricing Network Usage: A Market for Bandwidth or Market Communication?" presented at MIT Workshop on Internet Economics, Mar. 1995. http://www.press.umich.edu/jep/works/CrawMarket.html on Mar. 12, 2001. cited by other

Low, S.H., Equilibrium Allocation and Pricing of Variable Resources Among User-Suppliers (1988). http://citeseer.nj.nec.com/366503.html. cited by other

ART-UNIT: 2132

PRIMARY-EXAMINER: Barron, Jr.; Gilberto

ASSISTANT-EXAMINER: Lanier; Benjamin E.

#### ABSTRACT:

A method for applying a digital watermark to a content signal is disclosed. In accordance with such a method, a watermarking key is identified. The watermarking key includes a binary sequence and information describing application of that binary sequence to the content signal. The digital watermark is then encoded within the content signal at one or more locations determined by the watermarking key.

65 Claims, O Drawing figures

First Hit Fwd Refs Previous Doc Next Doc Go to Doc#

Generate Collection | Print |

L25: Entry 11 of 16 File: USPT Feb 28, 2006

DOCUMENT-IDENTIFIER: US 7007166 B1

TITLE: Method and system for digital watermarking

# Description Paragraph (76):

Bandwidth rights instruments are likely to be highly localized to specific subnets. Especially since certain types of connections may be available only from certain exchanges, and since failure probabilities are likely to vary with specific hardware, operating systems, and service providers. Additionally, the basic valuation equations above do not address telecommunications costs across various types of lines. This problem at least, might be solved by active maintenance of cost tables, designation codes for types of lines, and the designation of a low cost standard. The problem of moving rights between exchanges is made more difficult since supply/demand planning for one exchange will not translate to another, unless some means for interconnecting exchanges is developed, and exchange bandwidth planning is global. The race by many parties to link users to the INTERNET via varying access links (modem) including ISDN, POTs, cable, may further the need for common bandwidth pricing. What is clear is that the basic structure of the present invention would facilitate such planning to the benefit of all market participants: telecoms providers, INTERNET access companies, users and publishers as well as more general aggregators of content and bandwidth such as, phone companies, cable companies and satellite companies intending on providing services across multifarious line types.

#### CLAIMS:

22. The method of claim 19, wherein said one or more references is selected from the group consisting of: a encode/decode algorithm which is capable of encoding and decoding bits of information directly to and from the content signal, a function which relates the sequence of binary numbers to the content signal; a function which assesses the frequency content of the content signal before embedding the at least one watermark; a function which is capable of encrypting and decrypting information contained in the at least one watermark, and a function which embeds into the content signal an informational signal which comprises information about the at least one watermark such that the informational signal may be used to correct any errors that may have been introduced into the at least one watermark.

First Hit Fwd Refs

Previous Doc Next Doc Go to Doc#

Generate Collection | Print |

L25: Entry 14 of 16

File: USPT

Feb 26, 2002

US-PAT-NO: 6351640

DOCUMENT-IDENTIFIER: US 6351640 B1

TITLE: Initiating a Telecommunications call to a party based on an identifying

signal wirelessly transmitted by the party or its proxy

DATE-ISSUED: February 26, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

DeMont; Jason Paul Basking Ridge NJ

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Lucent Technologies, Inc. Murray Hill NJ 02

APPL-NO: 08/944387 [PALM] DATE FILED: October 6, 1997

PARENT-CASE:

REFERENCE TO RELATED APPLICATION This is a division of application Ser. No. 08/574,059, filed Dec. 15, 1995, now pending.

INT-CL-ISSUED: [07] H04B 1/38, H04Q 7/32

INT-CL-CURRENT:

TYPE IPC DATE
CIPS <u>H04 Q 7/22</u> 20060101

CIPS <u>H04 Q 7/38</u> 20060101

CIPN <u>H04 Q 7/32</u> 20060101

US-CL-ISSUED: 455/426; 455/415, 455/460, 455/536, 455/564, 455/566, 455/575,

455/90, 455/351

US-CL-CURRENT: 455/426.1; 455/351, 455/415, 455/460, 455/556.1, 455/564, 455/566,

455/575.9, 455/90.3

FIELD-OF-CLASSIFICATION-SEARCH: 455/403, 455/414, 455/5, 455/426, 455/460, 455/466, 455/500, 455/517, 455/550, 455/556, 455/564, 455/566, 455/568, 455/569, 455/575, 455/91, 455/95, 455/99, 455/100, 455/227, 343/702

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected	Search ALL	Clear
		and the second second second second

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
_	4164025	August 1979	Dubnowski et al.	364/900
Γ	4922518	May 1990	Gordon et al.	379/57
Γ	4939768	July 1990	Inaba et al.	379/58
Γ	4980910	December 1990	Oba et al.	379/355
Γ	5020150	May 1991	Shannon	455/343
Γ	5097502	March 1992	Suzuki et al.	379/356
Γ	5117449	May 1992	Metroka et al.	455/552
Г	5214793	May 1993	Conway et al.	455/517 X
Γ	5218629	June 1993	Dumond et al.	379/59
Γ	5230073	July 1993	Gausmann et al.	395/600
Γ	5276729	January 1994	Higuchi et al.	379/58
	5280516	January 1994	Jang	379/57
	5307349	April 1994	Shloss et al.	370/85.2
Γ	5329578	July 1994	Brennan et al.	379/67
Γ	5365516	November 1994	Jandrell	370/18
Γ	5412654	May 1995	Perkins et al.	370/94.1
Г	5418845	May 1995	Reeder	379/213
Γ	5428678	June 1995	Fitzpatrick et al.	379/201
Γ	5566358	October 1996	Obayashi et al.	455/435 X
Γ	5668559	September 1997	Baro	343/702
Γ	5835861	November 1998	Whiteside	455/466

ART-UNIT: 2683

PRIMARY-EXAMINER: Trost; William

ASSISTANT-EXAMINER: Sobutka; Philip J.

ATTY-AGENT-FIRM: DeMont & Breyer, LLC

#### ABSTRACT:

A method and apparatus for initiating a telecommunications call. A plurality of beacons (102) are geographically disposed in a telecommunications system (100). Each beacon (102n) radiates an electromagnetic carrier that is modulated with an identifying address (e.g., a telephone number, an Internet address) for an associated terminal. An identifying signal is stored in a memory (206). A controller (208) modulates a carrier with the identifying signal and a transmission element (210) transmits the carrier to allow a communications terminal (104) to

initiate a call to the associated communications terminal (114, 116). A wireless terminal (104a) includes a directional receiver (204). To initiate a call, a user points directional receiver (204) at a beacon. The directional receiver (204) receives the electromagnetic carrier and the wireless terminal recovers the identifying address. Wireless terminal (104) then uses the identifying address to initiates a call, in well-known fashion, to the communications terminal associated with the identifying address.

33 Claims, 15 Drawing figures

First Hit Fwd Refs

Previous Doc Next Doc Go to Doc#

Generate Collection | Print |

L25: Entry 14 of 16

File: USPT

Feb 26, 2002

DOCUMENT-IDENTIFIER: US 6351640 B1

TITLE: Initiating a Telecommunications call to a party based on an identifying signal wirelessly transmitted by the party or its proxy

## Brief Summary Text (11):

Alternative embodiments of the invention provide a method and apparatus for initiating a telecommunications call (whether voice, video, data or multimedia) while avoiding many of the costs and restrictions associated with conventional techniques. Specifically, alternative embodiments of the present invention enable the initiation of a telecommunications call to a communication terminal (e.g., a wireless terminal, a wireline terminal, an automatic call distribution system, etc.) based on the reception of an identifying address (e.g., the telephone number, the Internet address) of the communications terminal via a directional receiver.

# Detailed Description Text (3):

The illustrative embodiment comprises one or more "beacons" (e.g., beacons 102.sub.1, 102.sub.2, . . . , 102.sub.n). Each beacon 102.sub.i advantageously radiates an electromagnetic carrier that is modulated with data including, among other things, an identifying signal (e.g., a telephone number, an Internet address) of an associated communication terminal that is accessible via telecommunications system 100 and addressable by the identifying signal. Paging transmitter 118 can provide a signal to a beacon to remotely modify, for example, the identifying signal for the beacon as described more fully below. The details of where beacon 102.sub.i is located and what information it radiates will be discussed below.

#### Detailed Description Text (15):

The operation of wireless terminal 104a is as follows. A user points directional receiver 204 at a beacon to receive the electromagnetic carrier radiated by the beacon. Directional receiver 204 recovers the identifying signal from the electromagnetic carrier and provides the identifying signal to processor 202, in well-known fashion. Processor 202 then provides the identifying signal to radio 208, which uses the identifying signal, in well-known fashion, to initiate a call, via telecommunications system 100, to the communication terminal associated with the identifying address.

# Detailed Description Text (40):

To facilitate privacy and restrict the number of users who can receive information radiated by a beacon, the user data, transmissive data and/or identifying signal radiated by a beacon may be encrypted, in well-known fashion. In such cases, processor 202 must be capable of <u>decrypting</u> the encrypted <u>information</u>. Processor 202 may be given the cryptographic key via a keypad or penpad, or via telecommunications system 100.

Record Display Form Page 1 of 3

# First Hit Fwd Refs Previous Doc Next Doc Go to Doc# Generate Collection | Print |

L25: Entry 15 of 16 File: USPT Jan 19, 1999

US-PAT-NO: 5862220

DOCUMENT-IDENTIFIER: US 5862220 A

TITLE: Method and apparatus for using network address information to improve the

performance of network transactions

DATE-ISSUED: January 19, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Perlman; Stephen G. Mountain View CA

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

WebTV Networks, Inc. Mountain View CA 02

APPL-NO: 08/656923 [PALM] DATE FILED: June 3, 1996

INT-CL-ISSUED: [06] H04L 9/08, H04L 9/00

INT-CL-CURRENT:

TYPE IPC DATE CIPS H04 M 7/00 20060101 CIPS H04 N 5/00 20060101 CIPN <u>H04</u> <u>L 29/08</u> 20060101 CIPS HO4 L 29/12 20060101 CIPN <u>HO4 M 7/12</u> 20060101 CIPN H04 N 7/16 20060101 CIPS <u>H04</u> <u>L</u> <u>29/06</u> 20060101 CIPN H04 Q 3/72 20060101 20060101 CIPS H04 M 3/487 CIPS H04 M 3/493 20060101 CIPS H04 N 7/167 20060101

US-CL-ISSUED: 380/21; 380/9, 380/10, 380/49, 380/59

US-CL-CURRENT: 713/162; 348/E5.004, 348/E7.056, 380/251, 380/279, 380/59, 713/155

FIELD-OF-CLASSIFICATION-SEARCH: 380/4, 380/9, 380/21, 380/23, 380/25, 380/49,

380/50, 380/59, 380/10

See application file for complete search history.

PRIOR-ART-DISCLOSED:

Record Display Form Page 2 of 3

# U.S. PATENT DOCUMENTS

Search Selected	Search ALL	Clear	
-----------------	------------	-------	--

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
Г	4182933	January 1980	Roseblum	380/21
Γ	4852151	July 1989	Dittakavi et al.	379/97
_	4876717	October 1989	Barron et al.	380/25
<u></u>	4922523	May 1990	Hashimoto	379/96
	4975944	December 1990	Cho	379/209
Г	4995074	February 1991	Goldman et al.	379/97
Γ	5005011	April 1991	Perlman et al.	340/728
Γ	5056140	October 1991	Kimbell	380/23
Г	5095494	March 1992	Takahashi et al.	375/10
Г	5241587	August 1993	Horton et al.	379/92
_	5263084	November 1993	Chaput et al.	379/215
Г	5287401	February 1994	Lin	379/98
_	5299307	March 1994	Young	395/161
_	5325423	June 1994	Lewis	
Γ	5341293	August 1994	Vertelney et al.	364/419.17
Γ	5369688	November 1994	Tsukamoto et al.	379/100
Γ	5410541	April 1995	Hotto	370/76
Γ	5425092	June 1995	Quirk	379/215
$\Gamma$	5469540	November 1995	Powers, III et al.	395/158
Γ	5488411	January 1996	Lewis	348/8
Γ	5490208	February 1996	Remillard	379/96
Γ	5538255	July 1996	Barker	
Γ	5561709	October 1996	Remillard	379/96
Г	5564001	October 1996	Lewis	
Г	5612730	March 1997	Lewis	348/8

## OTHER PUBLICATIONS

Matt Rosoff, Review: "Gateway Destination PC," c/net inc., 2 pages, Feb. 19, 1996. Robert Seidman, Article: What Larry and Lou Know (That You Don't), c/net inc., 2 pages, Jan. 29, 1996.

Susan Stellin, Article: "The \$500 Web Box: Less is More?" c/net inc., 2 pages, 1996.

ART-UNIT: 276

PRIMARY-EXAMINER: Gregory; Bermarr E.

ATTY-AGENT-FIRM: Workman, Nydegger & Seeley

#### ABSTRACT:

An apparatus and method for using network address information to improve the performance and increase the functionality of network transactions. is disclosed. In a client network interface device having a processor and a memory coupled to the processor, the memory having stored therein sequences of instructions which when executed by the processor cause the processor to perform the steps of: 1) accessing a first server over a secure data communication line to obtain a client encryption key, 2) accessing a second server over an unsecure data communication line to establish a connection with the second server, 3) encrypting information sent to the second server over the connection using the client encryption key obtained from the first server, and 4) decrypting information received from the second server over the connection using the client encryption key obtained from the first server. The present invention further includes sequences of instructions which when executed by the processor cause the processor to perform the steps of, 1) connecting to an unsecure server over an unsecure data communication line to perform unsecure portions of a data transaction, 2) disconnecting from the unsecure server; and 3) connecting to a secure server over a secure data communication line to perform secure portions of the data transaction.

52 Claims, 16 Drawing figures

First Hit Fwd Refs Previous Doc Next Doc Go to Doc#

Generate Collection | Print |

L25: Entry 15 of 16 File: USPT Jan 19, 1999

DOCUMENT-IDENTIFIER: US 5862220 A

TITLE: Method and apparatus for using network address information to improve the performance of network transactions

## Abstract Text (1):

An apparatus and method for using network address information to improve the performance and increase the functionality of network transactions. is disclosed. In a client network interface device having a processor and a memory coupled to the processor, the memory having stored therein sequences of instructions which when executed by the processor cause the processor to perform the steps of: 1) accessing a first server over a secure data communication line to obtain a client encryption key, 2) accessing a second server over an unsecure data communication line to establish a connection with the second server, 3) encrypting information sent to the second server over the connection using the client encryption key obtained from the first server, and 4) decrypting information received from the second server over the connection using the client encryption key obtained from the first server. The present invention further includes sequences of instructions which when executed by the processor cause the processor to perform the steps of, 1) connecting to an unsecure server over an unsecure data communication line to perform unsecure portions of a data transaction, 2) disconnecting from the unsecure server; and 3) connecting to a secure server over a secure data communication line to perform secure portions of the data transaction.

## Brief Summary Text (3):

This invention is in the field of <u>telecommunications</u>, as it relates to the use of network address information for network transactions.

# Brief Summary Text (16):

The present invention is an apparatus and method for using network address information to improve the performance and increase the functionality of network transactions. A client network interface device is disclosed as having a processor and a memory coupled to the processor, the memory having stored therein sequences of instructions which when executed by the processor cause the processor to perform the steps of: 1) accessing a first server over a secure data communication line to obtain a client encryption key, 2) accessing a second server over an unsecure data communication line to establish a connection with the second server, 3) encrypting information sent to the second server over the connection using the client encryption key obtained from the first server, and 4) decrypting information received from the second server over the connection using the client encryption key obtained from the first server. The present invention further includes a client network interface device having a processor and a memory coupled to the processor, the memory having stored therein sequences of instructions which when executed by the processor cause the processor to perform the steps of, 1) connecting to an unsecure server over an unsecure data communication line to perform unsecure portions of a data transaction, 2) disconnecting from the unsecure server; and 3) connecting to a secure server over a secure data communication line to perform secure portions of the data transaction.

#### CLAIMS:

- 1. A client network interface device having a processor and a memory coupled to said processor, the memory having stored therein sequences of instructions to be executed by said processor, said instructions comprising:
- a first instruction for accessing a first server over a secure data communication line to obtain a client encryption key;
- a second instruction for accessing a second server over an unsecure data communication line to establish a connection with said second server;
- a third instruction for encrypting information sent to said second erver over said connection using said client encryption key obtained from said first server; and
- a fourth instruction for decrypting information received from said second server over said connection using said client encryption key obtained from said first server.
- 2. A first server having a processor and a memory coupled to said processor, the memory having stored therein sequences of instructions to be executed by said processor said instructions comprising:
- a first instruction for receiving a request from a client over an unsecure data communication line to establish a connection with said client;
- a second instruction for accessing a second server over a secure data communication line to obtain a client encryption key corresponding to said client;
- a third instruction for decrypting information received from said client over said connection using said client encryption key obtained from said second server; and
- a fourth instruction for encrypting information sent to said client over said connection using said client encryption key obtained from said second server.